

REMARKS

Applicant thanks the Examiner for the courtesy of the telephone interview held on December 18, 2006.

Applicants have cancelled claims 1-7, 9-17, 19-27, 34, 35, 38 and 39. Applicants have amended claims 44, 54, 55 and 65 to clarify those claims. As a result, claims 44-65 are pending in the present application. Of these, claims 44, 54, 55 and 65 are independent claims, and the remaining claims depend from those claims. Respectfully, Applicant submits that these pending claims should be allowed, for the reasons set forth below.

Silence with regard to any of the Examiner's rejections is not an acquiescence to such. Specifically, silence with regard to Examiner's rejection of a dependent claim, when such claim depends from an independent claim that Applicant considers allowable for reasons provided herein, is not an acquiescence to such rejection of the dependent claim(s), but rather a recognition by Applicant that such previously lodged rejection is moot based on Applicant's remarks relative to the independent claim (that Applicant considers allowable) from which the dependent claim(s) depends.

In addition, cancellation of claims 1-7, 9-17, 19-27, 34, 35, 38 and 39 is not a concession that Examiner's rejection of those claims was appropriate, and Applicant reserves the right to prosecute those or similar claims in this or a subsequent application claiming priority hereto.

Telephone Interview

Applicant thanks the Examiner for the courtesies extended during the telephone interview conducted on December 18, 2006 between the Examiner and Applicant's undersigned representative. During the interview, Applicant's representative and the Examiner discussed potential amending language to clarify the scope of claims 44, 54, 55 and 65.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner previously rejected independent claims 44, 54, 55 and 65 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,737,581 to Keane in view of U.S. Patent No. 5,897,629 to Shinagawa et al.

All four of these claims were rejected on the basis of the same reasoning. The Examiner recognized that Keane did not teach limitation (d) of claims 44, 54, 55 and 65, including limitation (d)(i):

(d) generating a next plurality of evolvable business models from the said plurality of evolvable business models by performing an evolutionary method including

(i) for at least one of said evolvable business models, determining said model's fitness based at least in part upon the operational performance of the said evolvable business model in the business ecosystem containing said plurality of evolvable business models,

Office Action, pp. 39-40. However, the Examiner stated that limitation (d) was taught by Shinagawa, and that it would have been obvious to combine the teachings of Shinagawa with those of Keane. Office Action, pp. 40-44, 53, 56, 62.

Applicant does not concede that the Examiner was correct in his rejections of claims 44, 54, 55 and 65. However, based upon the interview Applicant has amended independent claims 44, 54, 55 and 65 to clarify features of those claims, and more fully demonstrate the distinction between those claims and the cited art, and based upon those amendments Applicant respectfully suggests that the Examiner should withdraw these rejections, for the following reason, which will be explained with reference to the Examiner's discussion of claim 44, but which apply equally to claims 54, 55 and 65 as well.

Respectfully, Applicant suggests that Shinagawa does *not* teach limitation (d)(i) as set forth in clarified amended independent claim 44. Independent claim 44 (and claims 54, 55 and 65) as a whole deals with generating business models for solving selected business problems, and in particular is directed at a method for applying genetic algorithms to develop business models. However, *claim 44 adds a particular valuable new feature*, not previously found in such approaches: in claim 44 the fitness of a particular evolving business model is not evaluated independent of other evolving models, in a "static" environment; rather it is evaluated in an environment or ecosystem which includes *other* business models, including models with which it may be competing, and which other models *also* are simultaneously evolving in the same dynamic business environment or ecosystem. Because the fitness of evolving models thus is always evaluated taking into account the existence and behavior of other competing, evolving business models in the ecosystem, the evolution of the models takes into account the simultaneous evolution of other models.

This approach is of unique value. The methods and systems of claims 44, 54, 55 and 65 offer dynamic, rather than static, ecosystems in which the business models are to evolve.

That is to say, in other approaches in the prior art, as a business model evolves over the course of time (or iterations), it does so to optimize its fitness in an external environment that is remaining the same (or, if changing, is changing based upon externalities, not based upon evolving business models). Thus, prior art approaches do not take into account that as a business model evolves in the real world, other businesses in the business ecosystem or environment may themselves also evolve, in part in response to the evolution of the very business model itself. Thus, in choosing an optimum solution prior art approaches may fail to take into account the possibility that other competing businesses will adapt to the evolving business model by modifying their behavior in response to the evolving business model under study, and that this adaptation and resulting behavior modification in turn can impact the fitness of the evolving model.

The addition of this feature of dynamic change is reflected in limitation (d)(i), as clarified, which provides that the fitness of the evolving business model is determined based at least in part upon its operational performance in a business ecosystem or environment containing other competing evolvable business models as well, where the performance of the model being evaluated is affected by the evolved characteristics of the other evolving business models in the ecosystem.

In Shinagawa, by contrast, this feature of dynamic evolution, brought about by evaluating an evolving model's fitness in an environment where the existence and behavior of *other* competing evolving models will affect that model's fitness, is absent. The proposed delivery plans in Shinagawa are evolved in a fixed environment. While the fitness values of a plurality of proposed delivery plans are evaluated, and new plans are generated by genetic

operations upon the search strategies, when the fitness of the new plans is determined that fitness does not depend on the existence or actions of *other* evolving and competing plans. It follows that Shinagawa does not teach limitation (d)(i) of amended claims 44, 54, 55 and 65.

Thus, the combination of Keane and Shinagawa does not teach claims 44, 54, 55 and 65, and those claims should be allowed.

In addition, even if Shinagawa taught limitation (d)(i), there is no basis for combining it with Keane to reject claims 44, 54, 55 and 65. As set forth in MPEP §2143, three criteria must be met in order to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the cited references or to combine reference teachings. Second, there must be a reasonable expectation of success. The teachings or suggestion to modify the references or to combine reference teachings, as well as the reasonable expectation of success, must both be found in the prior art and not based on Applicant's disclosure. Third, the prior art references, when viewed as a whole, must teach or suggest all of the claimed features.

Neither Keane nor Shinagawa provides any teaching, suggestion, or motivation to combine the references in any manner. Moreover, the Office Action fails to specify any reasonable or compelling motivation to combine these references, and completely fails to discuss the reasonable expectation of success in making such a combination. The failure to satisfy the "reasonable expectation of success" requirement is particularly apparent because Shinagawa actually teaches away from reliance on genetic algorithms as a means of solving

business problems, stating that “genetic algorithms require enormous computation power and thus consume too much time to solve various problems available in real life,” Shinagawa, col. 2, lines 65-67, and that in Shinagawa “the solution search is based on a high-speed algorithm other than the genetic algorithms.” Shinagawa, col. 5, lines 5-6. In Shinagawa, the genetic algorithm is used only “to formulate the strategy” the actual problem-solving algorithm is to use. Shinagawa, col. 5, lines 10-11. Nothing in Shinagawa or Keane suggests countermanding this teaching away from the use of genetic algorithms to develop solutions to business problems.

Moreover, even assuming that the combination of Keane and Shinagawa were proper, which it is not, it is noteworthy that the Office Action fails to provide any methodology for practically and realistically applying any features of Shinagawa to modify Keane. Instead, the Office Action merely provides a general, sweeping and inappropriate assertion of an alleged motivation to combine the references, without any specific support.

In view of the foregoing, the Office Action fails to establish a *prima facie* case of obviousness based on the combination of Keane and Shinagawa. Accordingly, the combination of Keane and Shinagawa is improper, and therefore the rejection of claims 44, 54, 55 and 65 under 35 U.S.C. §103(a) should be withdrawn for that reason as well.

Because Applicant’s pending amended independent claims 44, 54, 55 and 65 are allowable, Applicant’s pending dependent claims 45-53 and 56-64, which depend from those independent claims, are also allowable.

CONCLUSION

In view of the foregoing remarks, Applicant considers the Response herein to be fully responsive to the referenced Office Action, and respectfully submits that the pending claims are in condition for allowance. Early and favorable reconsideration is therefore respectfully solicited.

If there are any remaining issues or the Examiner believes that a telephone conversation with Applicant's attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at 617-832-1118.

Should an extension of time be required, Applicant hereby petitions for same and request that the extension fee and any other fee required for timely consideration of this application be charged to Deposit Account **No. 06-1448, Reference ICO-701.**

Respectfully submitted,

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